

February 3, 2022

California Regional Water Quality Control Board  
San Diego Region  
2375 Northside Drive Suite 100  
San Diego, CA 92108

Re: Tentative Order No. R9-2022-0005

Dear Board Members:

Thank you for the opportunity to comment on Tentative Order No. R9-2022-0005

The effluent limitations on discharges from the proposed San Juan Creek Ocean Outfall of the Doheny Desalination project will contribute significantly to harming both marine life directly and the coastal marine habitat which supports marine life.

Please see the attached letter outlining the concerns as prepared by the South Laguna Civic Association dated July 25, 2018, for the Doheny Ocean Desalination project's DEIR. Comments that are especially relevant include:

- Comment #2, Impacts on Ocean Water Quality and Marine Life, pages 2-3 – "The illusion of dilution creates contaminate bioaccumulation among sea life and chronic ocean pollution."
- Comment #6, page 4, on "No project"– Flows from the Doheny Desalination Project would be eliminated with a no-project alternative
- Comment #9, page 5, on "Reduced Capacity"– "...combining enhanced conservation and enhanced recycled water could allow for a reduction in the gap between water supplies available and water needs."
- Conclusion, page 8 – consideration of new water management alternatives while improving and protecting environmental resources

Thank you for carefully considering these impacts and alternatives for desalination plant discharges and the esteemed opposition of the Sierra Club as well.

Respectfully,



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July 25, 2018

South Coast Water District  
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Subject: DRAFT ENVIRONMENTAL IMPACT REPORT  
STATE CLEARINGHOUSE NO. 2016031038  
Doheny Ocean Desalination Project

The purpose of the South Laguna Civic Association (SLCA), established in 1946, includes addressing issues affecting quality of life of residents of South Laguna, and those residents are customers and ratepayers of the South Coast Water District (SCWD). Since annexation of South Laguna by the City of Laguna Beach in 1987, the residents have continued to be well served by SCWD without having a direct voice in election of the Board of Directors of the district. Nevertheless, the Board of Directors of the SLCA appreciates the long working relationship with SCWD.

### **Purpose of the Proposed Project**

The first paragraph of the Executive Summary of the Doheny Ocean Desalination Project Draft EIR states the project would provide a “high quality, locally-controlled, drought-proof water supply. The desalination facility would also provide emergency back-up water supplies, should an earthquake, system shutdown, or other event disrupt the delivery of imported water to the area.”

SLCA has carefully followed the Doheny Ocean Desalination Project since its inception, and we agree with the project’s premises: the increasing scarcity of water and the need for a back-up supply of water in an emergency. We further recognize and support the need to address concerns for an overall regional water-supply strategy that is reliable, available during emergencies and sustainable.

We believe that most would agree that development of a desalination plant is a somewhat aggressive, perhaps radical, but clearly capital intensive and controversial way to achieve those objectives. So, careful review and consideration of the impacts of the proposed project are appropriate.

We therefore offer the following comments and alternatives to the proposed project which are intended to lead toward a safe and reliable source of supply via a robust and sustainable approach to ensuring a sufficient long-term supply of potable water that will be in the best interests of all SCWD customers and ratepayers.

### **Scope of the Proposed Project**

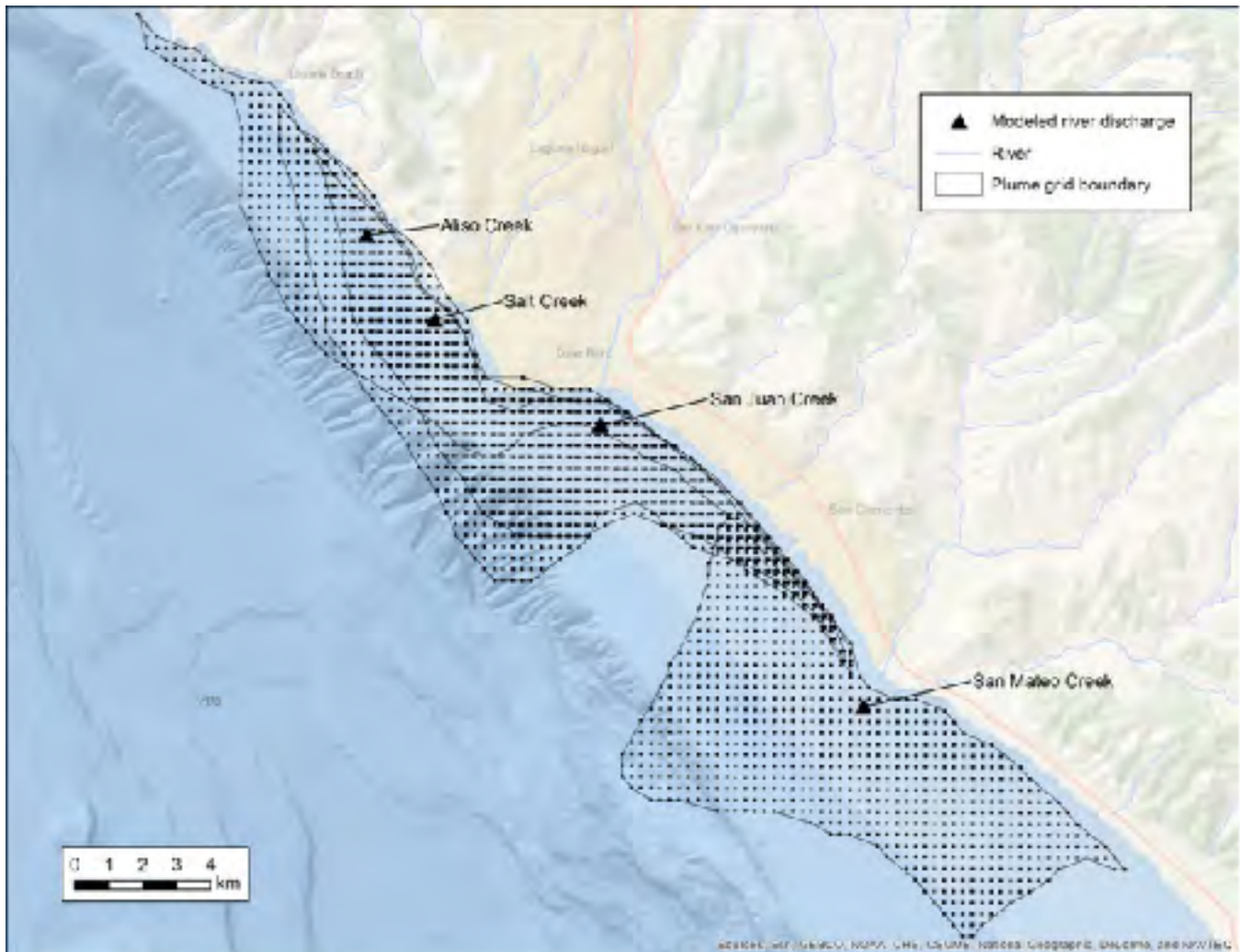
The Draft EIR Executive Summary states that “...SCWD has made investments in conservation, recycled water, and groundwater recovery. However, SCWD is currently relying on 85 to 100 percent of their water supply from imported sources. SCWD plans to use the desalination facility to decrease its reliance on imported water sources.

**SLCA Comment #1:** From what we can tell from information provided in the Draft EIR, the Phase 1 – 5MGD – facility would be able to do more than decrease reliance on imported water. It would appear to fully replace the need for any imported water. Therefore, rather than being scaled to fully replace all current imported water, the scale of the proposed project could be designed to only fill the gap between expected quantities of water available for purchase during times of drought, and potable water requirements remaining if there are improvements in the production of recycled water as well as emergency levels of potable water required in the event of a supply disruption. Numerous studies conclude as much as 50% of water demand can be met with local recycled water.

## SLCA Comment #2: Impacts on Ocean Water Quality and Marine Life

The proposed project will increase salinity of discharge and wastewater volumes on regulated coastal receiving waters frequented by federally protected migrating California grey whales, coastal dolphins and other marine life. Increased discharges at the San Juan Ocean Outfall (SJOO) will expand the wastefield plume to degrade larger areas and may represent “back-sliding” as it relates to the NPDES Permit. The Southern California Eddy Current and local ocean swells will transport brinewater discharges and likely migrate to South Laguna coastal waters and State Marine Protected Areas (SMCAs).

The highly saline brine that is a waste product of the process should probably not be returned to the ocean where it will surely have deleterious effects in whatever area it emerges: "The illusion of dilution creates contaminate bioaccumulation among sea life and chronic ocean pollution."



A more suitable alternative could be to dry the effluent and export to some off-site location where, chemically inert, it could do little harm. Camp Pendleton, for example, uses solar ponds to dewater brine water.

It appears if we are contaminating the ocean in the vicinity of the intake with the sewage effluent from San Juan Capistrano, Dana Point and Laguna Beach, then we are harvesting polluted water to remove not only the contaminants of that effluent including viruses and pharmaceuticals, but also the additional salts and naturally occurring chemicals, that make the ocean water undrinkable. Whereas the recycled water in from Aliso Canyon has many fewer contaminants to remove because it is much purer than the effluent they

are presently discharging. The prohibition about not implementing toilet to tap is not satisfied in this proposal because with all the discharges, the ocean becomes only a conduit for transmitting the toilet effluent back into the domestic water system.



*Mapping courtesy of Lei Lani Stelle, Ph.D., Professor, Chair of Department of Biology, University of Redlands*

The cetacean mapping graphic depicts the project's relation to the brinewater discharges and federally protected marine life as well as potential migration of the Doheny Project's wastefield plume into South Laguna coastal waters.

### **SLCA Comment #3: Impacts on Public Parks, Land and Beaches**

The installation of well heads in the coastal parks and on the ocean floor, and the resulting and ongoing impacts on marine habitat are an intrusion on the use and enjoyment of public land for which mitigation may or may not be achievable. Such use should trigger the acquisition of a few small parcels that are not part of, or accessed through, the public realm.

### **Fiscal Impacts**

**SLCA comment #4:** The fundamental premises of, and justification for, the proposed project stated are risk to SCWD customers and ratepayers of reduction in available supply due to drought or other causes and risk of interruption of supply due to earthquakes or other disaster. Few would disagree with the importance of having high quality, drought-proof supplies of water that would also offer emergency water supplies in the event of disruption of water imported to the area. A water supply disruption may likely include disruption to the power grid necessary for energy intensive ocean desalination and the ability to pump from sea level to users at higher, inland elevations to, thus, make the project inoperable when it is most needed.

This raises key questions:

1. Do the customers and ratepayers agree addressing the risk is worth the cost, both in environmental terms as well as financial terms?
2. If it is, is the proposed project the most appropriate solution?

As of June 30, 2017, the district reported annual gross revenue of under \$40,000,000 and liabilities including bond debt of over \$50,000,000. However, with the cost of routine capital improvements and the Tunnel Stabilization and Sewer Pipeline project the potential debt load of the district will soon exceed \$100,000,000 by a substantial amount, and if the Doheny Ocean Desalination Project proceeds as proposed, the total debt of the district could easily exceed \$200,000,000.

**SLCA comment #5:** We question whether it is appropriate for a district this size to assume such a large financial burden; and are there acceptable alternatives that would be less of a financial burden?

### Unknown Impacts

The consensus among scientists and engineers has been that there are many chemicals for which we not only do not test for in our drinking water but about which we have no data about their effects on human health. Thus, we should be extremely skeptical about assuming they are benign. Over the years, thousands of new chemicals have emerged, and will continue to emerge, all of which are sure to find their way into water. There is no reason to presume that we are in a position to know their concentrations or their effect. The project will draw seawater from areas adjacent to Dana Point Harbor with possible unaccounted marina fuel and boat contaminants.

### Alternatives Proposed in the Draft EIR

The Draft EIR considers four alternatives: “No Project,” “Enhanced Conservation,” “Enhanced Recycled Water,” and “Reduced Capacity.”

SLCA comments on the four alternatives proposed in the Draft EIR:

**SLCA comment #6, on “No project”:** “No project” would eliminate impacts, but would not achieve project objectives, may require finding alternative water supply sources, and would leave the district as vulnerable to disruptions of supply as it is today. In essence, “no project” is “no change” – so the issue is whether the project objectives are valid concerns, and whether the concerns warrant being addressed.

**SLCA comment #7, on “Enhanced Conservation”:** Though comments in the Draft EIR state that enhanced conservation is not considered sustainable and would not provide emergency water supplies in the event of outages or curtailment of supply due to drought or emergencies, SLCA would suggest that enhanced conservation be pursued as a part of any ongoing program to address the issues that led to the proposal. Enhanced conservation alone may not be the sole solution but should be a part of any ongoing program. Enhanced conservation can include increased storage in cisterns below streets, playing fields, parks and parking lots to decentralized water storage at higher elevations for gravity supplied water in an emergency similar to systems in San Francisco and elsewhere. Storage wells, groundwater recharge and even swimming pools can provide immediate water supplies during emergency events.

**SLCA comment #8, on “Enhanced Recycled Water”:** The document states that achieving the project supply goals through “enhanced recycled water” would require a four-fold increase in production of recycled water, but the bigger problem, it states, seems to be that there is no current regulatory pathway for use of “flange to flange” water as a potable water application. However, there is no proposal for direct potable use so the “flange to flange” concerns are irrelevant in the Draft EIR. The District contends it has insufficient recycled water production potential to make this alternative feasible. It is not clear whether this statement means there is no source of water to be processed in these quantities or if it means the plant capacity does

not exist. A proposal submitted to OC Public Works seeks State funding to double production of high purity recycled water at the successful \$2.5 million Aliso Creek Water Reclamation Facility at the Coastal Treatment Plant to 1 million gallons per day with a wholesale value of \$3,000 per day or \$1 million each year in new revenues to the District. The Aliso Creek Ocean Outfall adjacent to the Laguna Beach State Marine Conservation Area (SMCA) discharges 10 million gallons daily of wasted wastewater as an immediate, affordable source for more recycled water to meet and exceed District demands. This point needs clarification. However, as with the comments above on enhanced conservation, SLCA suggests that increasing recycled water, consistent with the Laguna Beach Wastewater Task Force Adopted Resolution of September 16, 2014, should be a part of any ongoing solution.

(Exhibit A: Laguna Beach WTF Adopted Resolution - [http://lagunabeachcity.granicus.com/MetaViewer.php?view\\_id=3&clip\\_id=400&meta\\_id=30776](http://lagunabeachcity.granicus.com/MetaViewer.php?view_id=3&clip_id=400&meta_id=30776)).

***SLCA comment #9, on “Reduced Capacity”:*** All-in-all, combining enhanced conservation and enhanced recycled water could allow for a reduction in the gap between water supplies available and water needs. Further, rather than being scaled to fully replace all current imported water, should the scale of the proposed project be designed to only fill the gap between expected quantities of water available for purchase during times of drought, and potable water requirements remaining after improvements due to enhanced conservation and enhanced recycling as well as emergency levels of potable water required in the event of a supply disruption? It may be that the critical component in determining the size of a proposed desalination facility would be demand for potable water under emergency circumstances. If that were to be the case, the question would be whether the customers and ratepayers would be willing to accept the costs, both financial and environmental, to develop that facility. In an emergency, recycled water can be filtered to potable water quality standards at the Aliso Creek Water Reclamation Facility and elsewhere in the District.

#### ***SLCA comment #10, Customer and Rate Payer Inclusion***

Before choosing one of the four proposed alternatives, SLCA believes the first step should be for the customers and ratepayers to express their opinion about whether there is a valid need for the project, whether the concerns warrant being addressed, and whether the proposed project is the most appropriate avenue to pursue. The risk of the debt, the change in monthly and annual costs to ratepayers, the risks of future reduced supplies due to droughts and other reasons, and the risk of interruption of supply due to earthquakes and other disasters, as well as environmental considerations should be explained to ratepayers, and all ratepayers – including South Laguna – should vote on whether to proceed or not. And it should not be a decision made solely by the SCWD Board. Absent a vote by South Laguna ratepayers, the project costs may constitute a “taxation (fee, rate increase, etc.) without representation”.

#### ***SLCA comment #11, City of Laguna Beach’s 2009 Climate Protection Plan***

Laguna Beach City’s Climate Protection Plan makes the following declaration:

##### **2.6 Water Use Efficiency and Sustainable Sourcing**

“The supply, conveyance, treatment, and distribution of water, and wastewater treatment, use significant amounts of electricity. The City should therefore strongly encourage reduction of water use. This will involve the development of landscape design and maintenance guidelines and the incorporation of water saving measures into green building standards. The City should also strongly encourage the development of less energy-intensive sources such as rainwater catchment and recycling.”

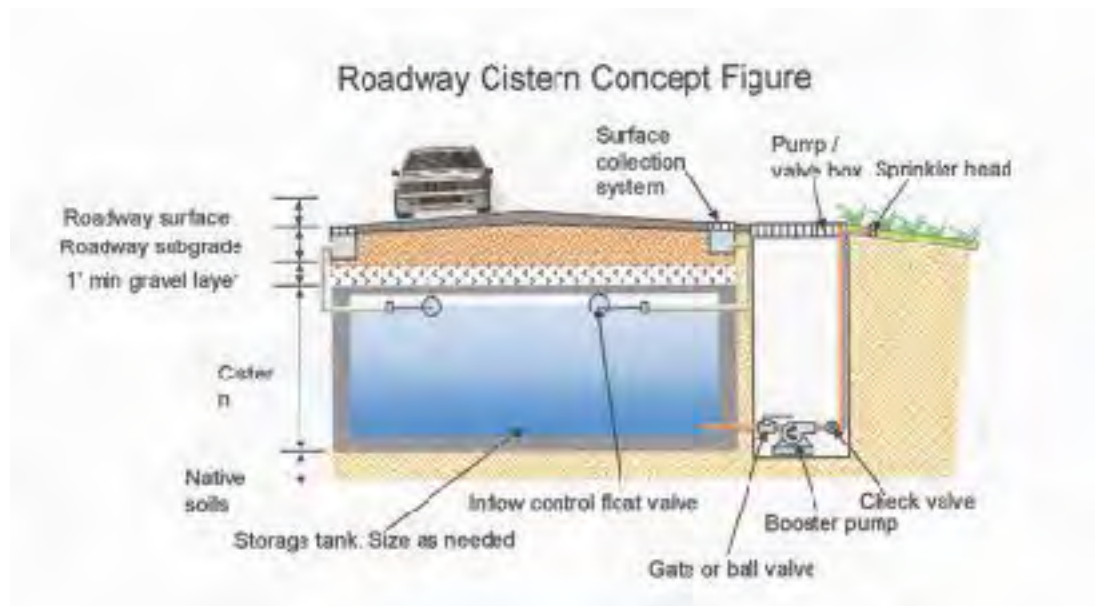
The proposed project acknowledges desalination of ocean seawater at 35,000 tds to potable standards of 500 tds is inconsistent with City of Laguna Beach plan objectives. Although South Laguna citizens are non-voting SCWD ratepayers, as a distinct area within city limits, it is nonetheless likely subject to the City’s Climate Protection Plan’s mandates.

#### **Other Alternatives Not Discussed in the Draft EIR**

For a resource so fundamental as water supply we should have not only a significant contingency to cover multiple possible events, but perhaps even some redundancy. This points to the need for a more comprehensive water supply strategy.

Beyond the four alternatives proposed in the Draft EIR, are there other alternatives that should be considered?

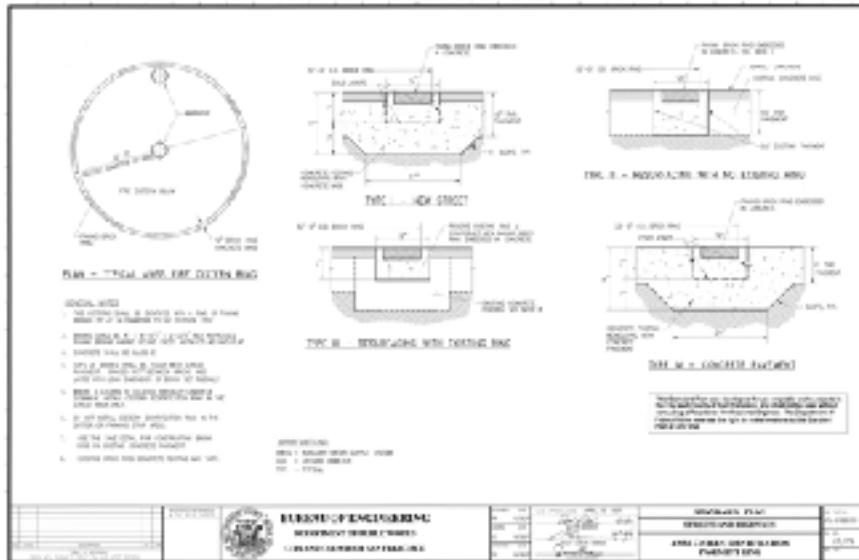
- Mandated sharing or combining water districts: If the issue is sharing of water resources among a set of smaller, local, independent retail water agencies, would a more reasonable solution be either a combination of agencies, or, at least a mandated sharing of water supplies so that resources are more equitably shared. Note that the Laguna Beach County Water District (LBCWD) recent acquisition of certain water rights will benefit Laguna residents served by that district, but not by those citizens of Laguna Beach living in South Laguna. LBCWD is a subsidiary of the Laguna Beach City Council and presently recycles 0% of its 1.6 million gallons per day of wastewater.
- In terms of adequacy of supply for urban uses, a more “global” approach would be to concentrate on making both California agriculture and Southern California region-wide consumption far more water-efficient, and creating incentives for doing so. Capturing agricultural irrigation runoff on-site for local beneficial reuse can increase regional water supplies while decreasing agricultural runoff contaminates to protected creek and coastal resources.
- Recycling from sources including Aliso Creek Water Reclamation Facility, rainwater and urban runoff harvesting, and a variety of cisterns warrants closer analysis (see concept diagrams below).



Designed by Geosyntec for the Athens Group's Aliso Redevelopment Plan

Using a sense of purpose in preparing for a regional emergency, multiple storage opportunities are present under parking lots, playing fields, under-utilized streets (e.g., behind Mission Hospital,

Act V Parking Lot in Laguna Beach, Salt Creek Parking Lot, etc.) to facilitate water storage throughout the District.



## Environmentally Superior Alternatives

From the Draft EIR:

“The ‘No Project’ Alternative would eliminate all of the potentially significant impacts associated with the environmental categories discussed. As such, it could be considered ‘environmentally superior’ to the Proposed Project.”

“The No Project Alternative would be the environmentally superior alternative because it would eliminate all of the potentially significant impacts of the proposed project. Section 15126.6(e)(2) of the State CEQA Guidelines states that if the ‘No Project’ alternative is found to be environmentally superior, ‘the EIR shall also identify an environmentally superior alternative among the other alternatives.’”

**SLCA comment #12:** Multiple studies conclude “upcycling” local wasted wastewater for reuse is more cost effective than water resources such as ocean desalination. Environmentally superior – and less costly – alternatives capable of achieving local water improvements include:

- Increased water recycling to underserved areas to include Laguna Beach for routine irrigation and wildfire suppression of mandated Fuel Modification Zones
- Domestic greywater systems certified and inspected annually
- Home rainwater cisterns
- Stormwater capture and groundwater replenishment

- Groundwater replenishment at the Chet Holifield Federal “Ziggurat” Building aquifer
- Aliso Canyon reforestation for stormwater capture, groundwater replenishment supplied by recycled water for irrigation and wildfire protection
- Groundwater replenishment wells

Alternative 3 in the Draft EIR is the “Enhanced Recycled Water Alternative.” From the Draft EIR:

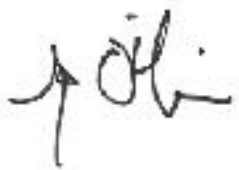
“In the absence of a desalination facility, the District would likely pursue even more aggressive conservation and recycling...”

**SLCA comment #13:** SLCA supports improvement of ocean water quality by “upcycling” 10 million gallons per day at the Aliso Creek Ocean Outfall (ACOO) of wasted wastewater at 1200 tds versus seawater at 35,000 tds. Underserved areas include the Laguna Greenbelt Fuel Modification Zones for wildfire protection and similar areas throughout the SCWD District (Exhibit B: City of Laguna Beach Fuel Modification Zone Guidelines).

**SLCA comment #14:** With rapidly changing technology related to recycling, it is conceivable that regulatory restrictions could change in the foreseeable future. Therefore, considering the pace of change in technology related to recycling, before making such a large financial commitment to a desalination plant based on limitations on use of recycled water under the current regulatory climate, should the Draft EIR consider the difference in financial cost and environmental impact of recycling water during regional emergencies to potable standards versus desalination?

## Conclusion

The South Laguna Civic Association enjoys a long partnership with SCWD and SOCWA members in advancing emerging solutions to local water shortage and ocean pollution. We remain ready to assist in developing the next generation of comprehensive new water management alternatives – not excluding desalination options – to achieve a balanced water supply based on a combination of more storage, the creation/extension of a recycled water system capable of providing sustainable water supplies while improving and protecting South Laguna’s rare environmental resources. To achieve ratepayer equity in determining the best path forward for the proposed expensive project, we urge the South Coast Water District to let all of the people vote.



Greg O'Loughlin

President